Abstracts

Anomalies Observed in Wafer Level Microwave Testing

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Wafer level testing of GaAs MMICs is fast, reliable and can be very accurate. However, two anomalies have been observed in the course of developing planar wafer level standards. The first involves a low frequency characteristic impedance change of microstrip and coplanar waveguide transmission lines. This effect, which is due to conductor loss of the transmission media, can result in improper/inaccurate calibrations and measurements. The second anomaly results from resonant coupling of the microwave probe itself into adjacent structures on the wafer. This can occur during calibration or measurement and results in extreme inaccuracies at the resonant frequencies.

❑ Return to main document.